IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A variable-optical-characteristic optical element characterized by using at least two selected from the group consisting of electrostatic force, electromagnetic force, a piezoelectric effect, magnetostriction, a fluid pressure, [[an electric field,]] a magnetic field, an electromagnetic wave, a temperature change, and a photomechanical effect.

2. (Currently Amended) A variable mirror characterized by using at least two selected from the group consisting of electrostatic force, electromagnetic force, a piezoelectric effect, magnetostriction, a fluid pressure, [[an electric field,]] a magnetic field, an electromagnetic wave, a temperature change, and a photomechanical effect.

3. (Currently Amended) A variable-focus lens characterized by using at least two selected from the group consisting of electrostatic force, electromagnetic force, a piezoelectric effect, magnetostriction, a fluid pressure, [[an electric field,]] a magnetic field, an electromagnetic wave, a temperature change, and a photomechanical effect.

4. (Currently Amended) A variable-optical-characteristic optical element [[characterized by using at least two different driving methods]] capable of achieving high-precision optical deflection by combined use of two or more different driving methods to change optical deflection thereof, wherein each driving method is capable of achieving a different optical deflection change.

5. (Currently Amended) A variable-optical-characteristic optical element, [[characterized by having a member for stepping up a voltage]] comprising a power source and a driving circuit for driving said variable-optical-characteristic optical element, wherein said power source or driving circuit includes a booster member for creating a voltage necessary for driving said variable-optical-characteristic optical element.

6. (Currently Amended) A variable-optical-characteristic optical element according to claim 5, [[which is characterized by using]] wherein electrostatic force or a piezoelectric effect is used.

7. (Currently Amended) A variable-optical-characteristic optical element [[characterized by using a magnetostrictive material]] comprising a deformable optical surface and a member for creating a magnetic field, wherein a substrate of said optical surface is made of a magnetostrictive material, and said member is capable of changing an intensity of the magnetic field.

8. (Currently Amended) A variable-optical-characteristic mirror [[characterized by using]] that uses a magnetostrictive material and comprising a deformable optical surface.

9. (Currently Amended) A variable-optical-characteristic lens [[characterized by using a magnetostrictive material]] comprises a deformable optical surface and a member for creating a magnetic field, wherein a substrate of said optical surface is made of a magnetostrictive material, and said member is capable of changing an intensity of the magnetic field.

10. (Currently Amended) A variable-optical-characteristic optical element [[characterized by having a transparent member for protection]] comprising a deformable optical surface, wherein a transparent member for covering a whole deformable portion thereof is provided near said optical surface.

11. (Currently Amended) A variable-optical-characteristic optical element [[characterized by having a transparent member for protection in the vicinity of a surface on at least one side of a variable mirror or a variable-focus lens]] according to claim 10 which is a variable mirror or a unifocus mirror.

12. (Currently Amended) A variable-optical-characteristic optical element [[characterized by using a photomechanical effect]] comprising a light source for driving said variable-optical-characteristic optical element, wherein a substance having a photomechanical effect is used for deformation of an optical surface, and optical deflection changes by deformation of the optical surface.

13. (Currently Amended) A variable-focus lens [[characterized by using a photomechanical effect]] comprising a light source for driving said varifocal lens, wherein a substance having a photomechanical effect is used for deformation of an optical surface, and optical deflection changes by deformation of the optical surface.

14. (Original) A variable mirror characterized by using a photomechanical effect.

15. (Original) A variable-optical-characteristic optical element characterized by having at least two different kinds of light sources and using a photomechanical effect.

16. (Currently Amended) An optical apparatus [[characterized in that a space facing a variable-optical-characteristic optical element is closed with a transparent member and a mechanical member]] comprising a variable-optical –characteristic optical element, wherein said variable-optical-characteristic optical element comprises an optical surface, and a space that faces a whole portion thereof that is to be deformed is closed up with a transparent member and a mechanical member.

17. (Currently Amended) An optical-apparatus [[characterized in that a space facing a variable-optical-characteristic optical element is hermetically sealed with a transparent member and a mechanical member]] comprising a variable-optical-characteristic optical element, wherein said variable-optical-characteristic optical element comprises an optical surface, and a space that faces a whole portion thereof that is to be deformed is airtightly closed up with a transparent member and a mechanical member.

18. (Original) An optical apparatus according to claim 16, which is characterized by using an air-permeable mechanical member or transparent member.

19. (Original) An optical apparatus according to claim 16 or 17, which is characterized in that the variable-optical-characteristic optical element is a variable mirror.

20. (Original) An optical apparatus according to claim 18, which is characterized in that the variable-optical-characteristic optical element is a variable mirror.

21. (New) A variable-optical-characteristic optical element having a deformable optical surface, which further comprises a control system for driving said variable-optical-

characteristic optical element, wherein said control system includes a booster member for creating a voltage necessary for driving said variable-optical-characteristic optical element.

22. (New) The variable-optical-characteristic optical element according to claim 21, which is a varifocal lens or a variable mirror.

23. (New) The variable-optical-characteristic optical element according to claim 21, which is a varifocal lens or a variable mirror, each using a fluid.

24. (New) An imaging system, comprising an image pickup device and an imaging optical system for which a variable-optical-characteristic optical element as recited in any one of claims 5, 21, 22 and 23 is used.

25. (New) An imaging system, comprising an image pickup device and an imaging optical system including a variable-optical-characteristic optical element as recited in any one of claims 5, 21, 22 and 23, wherein said variable-optical-characteristic optical element is used for autofocusing of said imaging optical system.

26. (New) A cellular phone, comprising an image pickup device and an imaging optical system including a variable-optical-characteristic optical element as recited in any one of claims 5, 21, 22 and 23, wherein said variable-optical-characteristic optical element is used for autofocusing of said imaging optical system.

27. (New) The variable-optical-characteristic optical element according to claim 10 or 11, wherein said transparent member is a lens.

28. (New) An imaging system, comprising an imaging optical system including a variable-optical-characteristic optical element as recited in claim 10 or 11.

29. (New) An optical apparatus, comprising a variable-optical-characteristic optical element having a deformable optical surface, wherein a space including a whole deformable portion is closed up with a transparent member and a mechanical member.

30. (New) An optical apparatus, comprising a variable-optical-characteristic optical element having a deformable optical surface, wherein a space including a whole deformable portion is airtightly closed up with a transparent member and a mechanical member.

31. (New) The optical apparatus according to any one of claims 16, 17 and 30, wherein said transparent member has a lens action.

32. (New) The imaging system according to claim 16 or 17, which comprises an image pickup device and an imaging optical system including said variable-optical-characteristic optical element, wherein autofocusing or zooming is carried out by deformation of said optical surface.

33. (New) The imaging system according to any one of claims 16, 17 and 30, which comprises an image pickup device and an imaging optical system including said variable-optical-characteristic optical element, wherein a contrast type of autofocusing is carried out by deformation of said optical surface.

34. (New) The optical apparatus according to any one of claims 16, 17 or 30, which comprises a display device.

35. (New) The optical apparatus according to any one of claims 16, 17 or 30, which comprises a lookup table for deforming the optical surface of said variable-optical-characteristic optical element.

36. (New) The optical apparatus according to any one of claims 16, 17 or 30, which comprises a plurality of said variable-optical-characteristic optical elements, wherein zooming is carried out.

37. (New) The optical apparatus according to any one of claims 16, 17 or 30, which is a cellular phone.

38. (New) The variable-optical-characteristic optical element according to claim 21, which is a varifocal lens using an electric field and a fluid.

39. (New) An imaging system, comprising an imaging optical system including a variable-optical-characteristic optical element as recited in claim 26.